BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Repair and Maintenance of Roads and Drains in Ward No. 10 (Doddabommasandra).

Estimated Cost : Rs. 30.00 Lakhs

Head of Account : P-3726 Zonal Public Works - POW Works

Job Code: 0010-22-000006

Name of Agency: Sri Subba Reddy K V, No. 106/B, Aswthanagara, RMV 2nd Stae, Bangalore - 560094.

Work order No: BMP/EE/BTP/WO/27/2022-23 D: 25-04-2022.

Measurements Recarded on : 21-02-2023

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 01 to 04 is							**571.78**	181.33	**103681.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3)								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 05 to 06 is							**850.12**	91.82	**78058.00**
3	Providing granite slabs of selected quality roughly dressed having a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete								Sqm	
	Hanuman Layout 3rd Main Road									
	R/S	1	5.00			0.75		3.75		
		1	5.50			0.75		4.13		
		1	6.80			0.75		5.10		
	L/S	1	8.60			0.75		6.45		
		1	7.90			0.75		5.93		
		1	5.60			0.75		4.20		
	Hanuman Layout 2nd Main Road									
	R/S	1	3.20			0.75		2.40		
		1	4.30			0.75		3.23		
		1	2.60			0.75		1.95		
		1	6.40			0.75		4.80		
	L/S	1	5.50			0.75		4.13		
		1	3.20			0.75		2.40		
		1	1.50			0.75		1.13		
		1	3.50			0.75		2.63		
		1	5.00			0.75		3.75		
	Hanuman Layout 1st Main Road									
	R/S	1	4.60			0.75		3.45		
		1	5.50			0.75		4.13		
		1	3.20			0.75		2.40		
		1	2.80			0.75		2.10		
		1	5.50			0.75		4.13		
		1	5.50			0.75		4.13		
		1	2.50			0.75		1.88		
		1	1.50			0.75		1.13		
		1	6.80			0.75		5.10		
		Total Qty =						**84.38**		
		Qty Limited to Tender Qty =						**84.08**	797.54	**67057.00**

Junior Engineer
Ward No. 10

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97.

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
	Measurements Recarded on :	21-02-2023								
4	Providing one line dressing to granite stone slab / granite stone masonry as per specifications.								Sqm	
	Hanuman Layout 3rd Main Road									
	R/S	1	5.00			0.75		3.75		
		1	5.50			0.75		4.13		
		1	6.80			0.75		5.10		
	L/S	1	8.60			0.75		6.45		
		1	7.90			0.75		5.93		
		1	5.60			0.75		4.20		
	Hanuman Layout 2nd Main Road									
	R/S	1	3.20			0.75		2.40		
		1	4.30			0.75		3.23		
		1	2.60			0.75		1.95		
		1	6.40			0.75		4.80		
	L/S	1	5.50			0.75		4.13		
		1	3.20			0.75		2.40		
		1	1.50			0.75		1.13		
		1	3.50			0.75		2.63		
		1	5.00			0.75		3.75		
	Hanuman Layout 1st Main Road									
	R/S	1	4.60			0.75		3.45		
		1	5.50			0.75		4.13		
		1	3.20			0.75		2.40		
		1	2.80			0.75		2.10		
		1	5.50			0.75		4.13		
		1	5.50			0.75		4.13		
		1	2.50			0.75		1.88		
		1	1.50			0.75		1.13		
		1	6.80			0.75		5.10		
		Total Qty =						84.38		
		Qty Limited to Tender Qty =						84.08	784.42	65954.00

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Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
	Measurements Recarded on :									
5	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 07 to 08 is							**1166.10**	5.24	**6110.00**
6	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 09 to 10 is							**291.52**	1651.00	**481300.00**
	Measurements Recarded on :									
7	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 11 to 12 is							**1166.10**	27.98	**32627.00**
8	Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen**								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 13 to 14 is							**58.30**	7050.21	**411027.00**
9	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 15 is							**2412.90**	4.37	**10544.00**
10	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty Vide Item No. 09							2412.90		
								2412.90	10.49	**25311.00**
11	Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen**								Cum	
	Hamuman Layout 3rd Main Road									
	From RC pura Main Road to SWD	1	15.00	5.70	5.20	5.45	0.040	3.27		
		1	15.00	5.20	4.60	4.90	0.040	2.94		
		1	15.00	4.60	4.05	4.33	0.040	2.60		
		1	15.00	4.05	4.55	4.30	0.040	2.58		
		1	15.00	4.55	4.40	4.48	0.040	2.69		
		1	15.00	4.40	5.00	4.70	0.040	2.82		
		1	15.00	5.00	4.90	4.95	0.040	2.97		
		1	9.50	4.90	5.30	5.10	0.040	1.94		
	Hamuman Layout 2nd Main Road									
	From SWD to RC pura Main Road	1	15.00	4.40	4.45	4.43	0.040	2.66		
		1	15.00	4.45	4.05	4.25	0.040	2.55		
		1	15.00	4.05	4.85	4.45	0.040	2.67		
		1	15.00	4.85	4.90	4.88	0.040	2.93		

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32.60

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
		1	15.00	4.90	4.95	4.93	0.040	2.96		
		1	15.00	4.95	4.65	4.80	0.040	2.88		
		1	15.00	4.65	4.60	4.63	0.040	2.78		
		1	9.30	4.60	4.70	4.65	0.040	1.73		
	Hamuman Layout 1st Main Road									
	From RC pura Main Road to SWD	1	15.00	6.40	5.80	6.10	0.040	3.66		
		1	15.00	5.80	5.10	5.45	0.040	3.27		
		1	15.00	5.10	4.40	4.75	0.040	2.85		
		1	15.00	4.40	5.05	4.73	0.040	2.84		
		1	15.00	5.05	4.50	4.78	0.040	2.87		
		1	15.00	4.50	4.40	4.45	0.040	2.67		
		1	15.00	4.40	4.70	4.55	0.040	2.73		
		1	15.00	4.70	4.05	4.38	0.040	2.63		
		1	13.40	4.05	3.80	3.93	0.040	2.10		
	Hamuman Layout 1st Main Road 3rd Cross									
	From 1st Main to 2nd Main	1	15.00	3.65	3.35	3.50	0.040	2.10		
		1	15.00	3.35	3.55	3.45	0.040	2.07		
		1	15.00	3.55	3.45	3.50	0.040	2.10		
		1	15.70	3.45	4.20	3.83	0.040	2.40		
	Hamuman Layout 1st Main Road 2nd Cross									
	From 2nd Main to 1st Main									
		1	15.00	3.90	3.50	3.70	0.040	2.22		
		1	15.00	3.50	4.05	3.78	0.040	2.27		
		1	15.00	4.05	3.90	3.98	0.040	2.39		
		1	15.00	3.90	3.55	3.73	0.040	2.24		
		1	4.20	3.55	3.70	3.63	0.040	0.61		
	Hamuman Layout 1st Main Road 1st Cross									
	From 1st Main to 2nd Main	1	15.00	4.80	4.35	4.58	0.040	2.75		
		1	15.00	4.35	4.25	4.30	0.040	2.58		
		1	15.00	4.25	5.10	4.68	0.040	2.81		
		1	15.00	5.10	4.20	4.65	0.040	2.79		
		1	7.10	4.20	4.40	4.30	0.040	1.22		
	Deduction of Manholes									
	Manhole	-16	0.79	Area of Circle = (3.142*1.0*1.0)/4 = 0.79			0.04	-0.51		
		Total Qty =						**98.57**		
		Qty Limited to Tender Qty =						**96.52**	8227.29	**794098.00**

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Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
	Measurements Recarded on :	21-02-2023								
12	Road Marking with Hot Applied ThermoplasticCompound with Reflectrising Glass Beads on Bituminous Surface/Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.								Sqm	
	Hamuman Layout 3rd Main Road	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	9.50			0.10		1.90		
	Hamuman Layout 2nd Main Road	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	9.30			0.10		1.86		
	Hamuman Layout 1st Main Road	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	13.40			0.10		2.68		
	Hamuman Layout 1st Main Road 3rd Cross	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.70			0.10		3.14		
	Hamuman Layout 1st Main Road 2nd Cross	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	4.20			0.10		0.84		
	Hamuman Layout 1st Main Road 1st Cross	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	7.10			0.10		1.42		
					Total Qty =			110.84	110.84	
					Qty Limited to Tender Qty =			103.80	375.16	38942.00
	Sub Total									2114709.00
	GST @ 12%									253765.00
									Total	2368474.00

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